

**REMARKS**

The applicants have carefully considered the official action dated February 14, 2006, and the references it cites. In the official action, claims 1-4, 6-10, 12-17, 19-24, and 26-34 were rejected under 35 U.S.C. 102(b) as anticipated by Nakagawa (U.S. Patent No. 6,237,058 B1), and claims 5, 11, 18, and 25 were allowed.

By way of this response, claim 28 has been amended and claim 30 has been cancelled without prejudice. In view of the foregoing amendments and the following remarks, the applicants respectfully traverse the outstanding rejections and submit that all pending claims are in condition for allowance. Favorable reconsideration is respectfully requested.

Turning to the art rejections, the applicants respectfully submit that independent claims 1, 8, 15, 21, and 28 are allowable over the art of record. Independent claims 1, 8, 15, 21, and 28 are directed, respectively, to a method, machine readable medium storing instructions, apparatus, and system that, *inter alia*, generates an interrupt weighted average (IWA) for each of a plurality of processors. None of the cited references teaches or suggests generating an IWA for each of a plurality of processors, as recited in claims 1, 8, 15, and 21.

It is well established that “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” [See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) and M.P.E.P. §2131]. Because Nakagawa does not disclose or suggest, either expressly or inherently, generating an interrupt weighted average (IWA) for each of a plurality of processors, Nakagawa cannot anticipate independent claim 1. Moreover, even if the official action were to allege that Nakagawa inherently disclosed or suggested generating an IWA, the official action fails to provide the applicants with “a basis

in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” [See *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) and M.P.E.P. §2112]. In an apparent attempt to provide the requisite basis in fact or technical reasoning, the examiner states that Nakagawa achieves a good balance between processor load and interrupt load as being a similar objective to the claimed invention of the applicants’. [See official action, page 11]. However, “[T]he fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” [See *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) and M.P.E.P. §2112]. In light of Nakagawa’s silence to an average, a weight, much less an interrupt weighted average, and the examiner’s failure to provide a basis in fact or technical reasoning to support a contention that an interrupt weighted average necessarily flows from the teachings of Nakagawa, the applicants respectfully maintain that Nakagawa fails to anticipate the claimed subject matter.

The official action also appears to contend that the interrupt load distribution schedule, which is based on the information in the interrupt schedule information table (FIG. 3), and the processor statistical information table (FIG. 2) constitute an interrupt weighted average. However, this apparent interpretation is provided without any supporting evidence or reasoning. On the contrary, a close review of Nakagawa provides evidence contrary to the examiner’s position. In particular, Nakagawa clearly describes the processor statistical information table of FIG. 2 as storing information pertaining to the processors (1)-(N) over a given time period for reference by the interrupt scheduler. [See Nakagawa, FIG. 2 and Col. 6, lines 29-38]. In other words, the processor statistical information table identifies a load status of each processor. Furthermore, Nakagawa describes the interrupt schedule

information table of FIG. 3 as specified rules applied to predefined processor numbers. For example, FIG. 3 illustrates that a pre-determined processor handles an interrupt and, unlike a weight, process logic specifies rules to be observed. [See Nakagawa, FIG. 3 and Col. 6, lines 39-46]. Nakagawa clearly fails to disclose or suggest that either the processor statistical information table of FIG. 2 or the interrupt schedule information table of FIG. 3 constitute a weight, much less an interrupt weighted average.

Additionally, the examiner alleges that FIGS. 5 and 6, and Col. 6, line 62 through Col. 7, line 65 illustrates a teaching that is contrary to the applicants' assertion that Nakagawa fails to teach or suggest an interrupt weighted average. On the contrary, a careful reading of the aforementioned sections of Nakagawa illustrate a failure to teach or suggest an interrupt weighted average. In particular, Nakagawa teaches an interrupt load distribution system that determines whether re-scheduling of interrupt load distribution is required by comparing processor activity ratios and the number of processes requesting a bind to corresponding predetermined criterion values (i.e., thresholds or limits) [Nakagawa, col. 6, line 62 through col. 7, line 11 and FIGS. 2 and 3]. With the system taught by Nakagawa, rescheduling of interrupt load distribution occurs only if all of the processor activity ratios and number of processes requesting a bind exceed the predetermined criterion values [Nakagawa, col. 7, lines 12-65 and FIGS. 5 and 6]. More specifically, rather than an interrupt weighted average, as recited by independent claim 1, Nakagawa requires that all activity ratios (i.e., X%, Y%) and number of processes (i.e., P) exceed pre-determined criterion values (i.e., XS%, YS%, PS) before a load distribution is rescheduled. [See FIGS. 5 and 6, Col. 6, line 62 through Col. 7, line 40]. If one or more of the activity ratios is equal to or below the criterion values, then no rescheduling is performed and the interrupt scheduler enters a wait mode. [See FIGS. 5 and 6, Col. 7, lines 40-46]. Generally speaking, Nakagawa responds based on whether or not

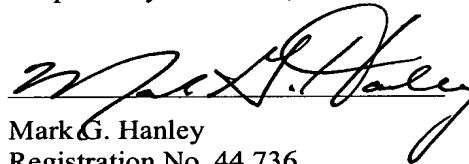
thresholds are exceeded rather than an interrupt weighted average. As a result, Nakagawa is completely devoid of any teaching or suggestion that a weighted average, much less an interrupt weighted average as recited in claim 1, can or should be used to schedule interrupt load distribution. In light of the absence of any express teaching, much less any inherent teaching of a weight, an average, or an interrupt weighted average, the applicants respectfully submit that the anticipation rejection of claim 1 based on Nakagawa be withdrawn or that the examiner provide at least some evidence of how Nakagawa describes an interrupt weighted average as presently claimed.

Accordingly, the applicants respectfully submit that, for at least the foregoing reasons, independent claim 1 and claims 2-4, 6, and 7 dependent thereon are in condition for allowance. The applicants respectfully submit that independent claims 8, 15, 21, and 28, and all claims dependent thereon are also in condition for allowance for at least the reasons set forth above in connection with claim 1.

As a final matter, if the examiner elects to maintain his rejections in view of the foregoing remarks, the applicants respectfully request entry of the amendment to claim 28 to put this application in better condition for appeal.

In view of the foregoing, the applicants respectfully submit that this application is now in condition for allowance. If there are any remaining matters that the examiner would like to discuss, the examiner is invited to contact the undersigned representative at the telephone number set forth below.

Respectfully submitted,



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